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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,304	12/20/2001	Andreas Jagtoyen	03438.0082	8395
7590 10/20/2004				
Finnegan Henderson Farabow Garrett & Dunner 1300 I Street NW Washington, DC 20005-3315			EXAMINER VERBITSKY, GAIL KAPLAN	
			ART UNIT 2859	PAPER NUMBER

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,304

Applicant(s)

JAGTOYEN, ANDREAS

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 15 is/are rejected.
- 7) ☒ Claim(s) 5-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (U.S. 5257863) [hereinafter Chu] in view of Prior Art (WO 9709596) admitted by applicant in pages 2-3 of the specification [hereinafter WO].

Chu discloses in Figs. 1-4 a device to measure a temperature of an inaccessible moving mechanical part (rotor), the device is encapsulated in a cylindrical plug/ housing 17, 21 having threads and substantially hollow inside to receive the temperature sensor (hollow bolt), the housing 17 is received in a well (mounting hole) 16 formed in the rotor. The temperature sensor is fitted in the encapsulation 21 with an epoxy resin 24 in the form of a sleeve, the epoxy resin is resistant to stress, and thus, keeping the device in position. The device has an antenna 19 to transmit an encoded temperature signal wirelessly to a stationary antenna 26.

Chu does not teach that the sensor includes a SAW sensor, as stated in claim 1, with the remaining limitations of claims 1-4.

WO teaches that the temperature of a moving part, i.e., a rotor can be obtained by a SAW chip.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the temperature sensing means, disclosed by Chu, with a SAW

chip sensing means, as taught by WO, because both of them are alternate types of temperature sensing means which will perform the same action of remotely sensing temperature of the moving part, if one is replaced with the other.

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chu, WO and Schurmann (U.S. 5513525).

Chu discloses in Figs. 1-4 a device to measure a temperature of an inaccessible moving mechanical part (rotor), the device is encapsulated in a cylindrical plug/ housing 17, 21 having threads and substantially hollow inside to receive the temperature sensor (hollow bolt), the housing 17 is received in a well (mounting hole) 16 formed in the rotor. The temperature sensor is fitted in the encapsulation 21 with an epoxy resin 24 in the form of a sleeve, the epoxy resin is resistant to stress, and thus, keeping the device in position. The device has an antenna 19 to transmit an encoded temperature signal wirelessly to a stationary antenna 26.

Chu does not teach that the temperature-sensing element is an encapsulated SAW element. Chu does not teach a second antenna arranged to transmit and receive signals from the first antenna. Chu does not teach to connect the second antenna by a cable to a control unit.

WO teaches a device to determine a temperature of a moving part, the device comprises a SAW comprising temperature-sensing element. WO teaches a temperature transmitting function (temperature dependent transfer function). WO teaches that the temperature corresponding acoustic signal is transmitted by radio (transmission line) to a remote point (antenna) located outside. A polling signal in the form of a radio signal with a specified property transmitted from a polling unit and received by the SAW element, converted into an electrical signal, then in an

acoustic signal, reflected from a surface, converted back into the electrical signal (modified), and returned to the polling unit (control unit).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the temperature sensing element disclosed by Chu, with the temperature sensing element comprising SAW, as taught by WO, because both of them are alternate types of temperature sensing/ detecting elements which will sense/ determine the temperature of a moving part and transmitting a signal to an antenna, if one is replaced with the other.

Schurmann discloses a device in the filed of applicant's endeavor comprising a sensor installed/ encapsulated in a moving part (wheel), a first antenna (transponder) 44 and 48 coupling to a second antenna/ receiver connected to an evaluating (control) electronics via a wire line (cable) 34.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Chu, so as to add a second antenna/ receiver connected to the control unit by a cable, as taught by Schurmann, in order to transmit a temperature related signal directly to an operator, in order to enable the operator to take necessary action when needed.

Allowable Subject Matter

4. Claims 5-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1-4, 15 have been considered but are moot in view of the new ground(s) of rejection.

For claim 15: Applicant states that Martin does not measure temperature but alarms when threshold has been reached. This argument is not persuasive because, this limitation is not stated in claim 15. It is the claims that define the claimed invention, and it is claims, not specification that are anticipated or unpatentable. Constant v. Advanced Micro-Devices, Inc., 7 USPQ2d 1064.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Duffy et al. U.S. 5642105 discloses a device a SAW sensor installed in an inaccessible mechanical moving part.

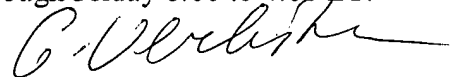
Lemoine et al. U.S. 5805080 discloses a device a SAW sensor installed in an inaccessible mechanical moving part.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky

Primary Patent Examiner, TC 2800



October 07, 2004

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